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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/631,880	07/31/2003	Richard Allen Hayes	AD6889 US NA	1805
23906	7590	08/07/2006		
E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			EXAMINER BOYKIN, TERRESSA M	
			ART UNIT	PAPER NUMBER
			1711	
DATE MAILED: 08/07/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/631,880	Applicant(s) HAYES, RICHARD ALLEN	
	Examiner Terressa M. Boykin	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 28 June 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-98 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-98 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

**Response to Arguments**

Applicant's arguments with respect to claims 6-28-06 have been considered but are moot in view of the new ground(s) of rejection.

**Claim Rejections - 35 USC § 102**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 1-98 are rejected under 35 U.S.C. 102( b) as being anticipated by USP 63468710 abstract, cols. 1-4 and claim 1.**

USP 63468710 discloses a sulfonated copolyester of the reaction product of: (a) one or more aromatic dicarboxylic acids or an ester thereof; (b) one or more aliphatic dicarboxylic acids or an ester thereof; (c) one or more sulfonated compound; and (d) isosorbide. The polyesters are useful to form articles of increased biodegradability.

The copolyester polymer of the invention contains sulfo groups, which may be introduced in any desired manner, e.g., in aliphatic or aromatic monomers such as sulfonated aliphatic or aromatic dicarboxylic acids or may be introduced as end-groups by including monofunctional components containing a sulfonic acid moiety as a substituent. An example of an aliphatic sulfonate component include the metal salts of sulfosuccinic acid. Specific examples of aromatic sulfonate components that can be

used as end-groups include the metal salts of 3-sulfobenzoic acid, 4-sulfobenzoic acid and 5-sulfosalicylic acid. Preferred are sulfonate components whereby the sulfonate salt group is attached to an aromatic dicarboxylic acid. The aromatic nucleus may be benzene, naphthalene, diphenyl, oxydiphenyl, sulfonyldiphenyl, methylenediphenyl, or the like. Preferably, the sulfonate monomer is the residue of a sulfonate-substituted phthalic acid, terephthalic acid, isophthalic acid or 2,6-naphthalenedicarboxylic acid. Most preferably, the sulfonate component is a metal salt of 5-sulfoisophthalic acid or the lower alkyl (C.sub.1 -C.sub.6) esters of 5-sulfoisophthalate.

The reference states that the polymer can be formed with an optional glycol and that any glycol known in the art can be used as the optional dihydric alcohol of the reference. Examples include unsubstituted or substituted; straight chain, branched, cyclic aliphatic, aliphatic-aromatic, or aromatic diols having e.g., from 2 carbon atoms to 36 carbon atoms and poly(alkylene ether) glycols with molecular weights preferably between about 250 to about 4,000. Specific examples of the useful glycol component include ethylene glycol, 1,3-propanediol, 1,4-butanediol, 1,6-hexanediol, 1,8-octanediol, 1,10-decanediol, 1,12-dodecanediol, 1,14-tetradecanediol, 1,16-hexadecanediol, dimer diol, 4,8-bis(hydroxymethyl)-tricyclo[5.2.1.0/2.6]decane, 1,4-cyclohexanedimethanol, di(ethylene glycol), tri(ethylene glycol), poly(ethylene ether) glycols, poly(butylene ether) glycols and the like and mixtures of two or more. Preferred dihydric alcohols include ethylene glycol, 1,3-propanediol, 1,4-butanediol, 1,6-hexanediol and poly(ethylene ether) glycols.

With regard to claims 19-98, the reference discloses shaped articles include films,

sheets, fibers, melt blown containers, molded parts, such as cutlery, foamed parts, polymeric melt extrusion coatings onto substrates, polymeric solution coatings onto substrates, and the like. The copolyesters may be solution or melt processed to form coatings, films and the like. Films of the copolyesters of the present invention may be produced by any known art method, including, for example, solution or melt casting. Other examples of such end-uses include melt extrusion coatings, melt blown films or containers, foam and the like.

The compositions may also find use as a component of a polymer blend with other polymers, such as cellulose ethers, thermoplastic starch, poly(vinyl alcohol), and the like. Generally any additive or filler of the art can be used with the copolyesters of the reference.

The film properties may be further adjusted by adding certain additives and fillers to the polymeric composition, such as colorants, dyes, UV and thermal stabilizers, antioxidants, plasticizers, lubricants antiblock agents, slip agents, and the like, as recited above. Alternatively, the copolyesters of the present invention may be blended with one or more other polymers, such as starch, to improve certain characteristics.

Lastly, the polyesters of the present invention may be readily foamed by a wide variety of methods known in the art. These include the injection of an inert gas such as nitrogen or carbon dioxide into the melt during extrusion or molding operations. Alternatively, inert hydrocarbon gases such as methane, ethane, propane, butane, and pentane, or chlorofluorocarbons, hydrochlorofluorocarbons, hydrofluorocarbons, and the like may be used. Another method involves the dry blending of chemical blowing

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agents with the polyester and then extruding or molding the compositions to provide foamed articles.

Each of the references discloses a prepared from the same components as claimed by applicants. Any properties or characteristics inherent in the prior art, e.g. although unobserved or detected by the reference, would still anticipate the claimed invention. Note *In re Swinehart*, 169 USPQ 226. "It is elementary that the mere recitation of a newly discovered...property, inherently possessed by things in the prior art, does not cause claim drawn to those things to distinguish over the prior art". Since the disclosed parameters, e.g. melt viscosity and glass transition temperature, as opposed to the crystalline melt temperature of the reference, are expressed differently, they nevertheless appear to overlap those claimed. Neither of the moieties is amorphous and in view of the above, there appears to be no significant difference between the reference and that which is claimed by applicant(s). Any differences not specifically mentioned appear to be conventional. Consequently, the claimed invention cannot be deemed as novel and accordingly is unpatentable.

### **Correspondence**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Terressa Boykin whose telephone number is 571 272-1069. The examiner can normally be reached on Monday through Friday from 6:30am to 3:00pm.

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The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. The general information number for listings of personnel is ( 571-272-1700).

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tmb

  
Examiner Terressa Boykin

TERRESSA M. BOYKIN  
PRIMARY EXAMINER